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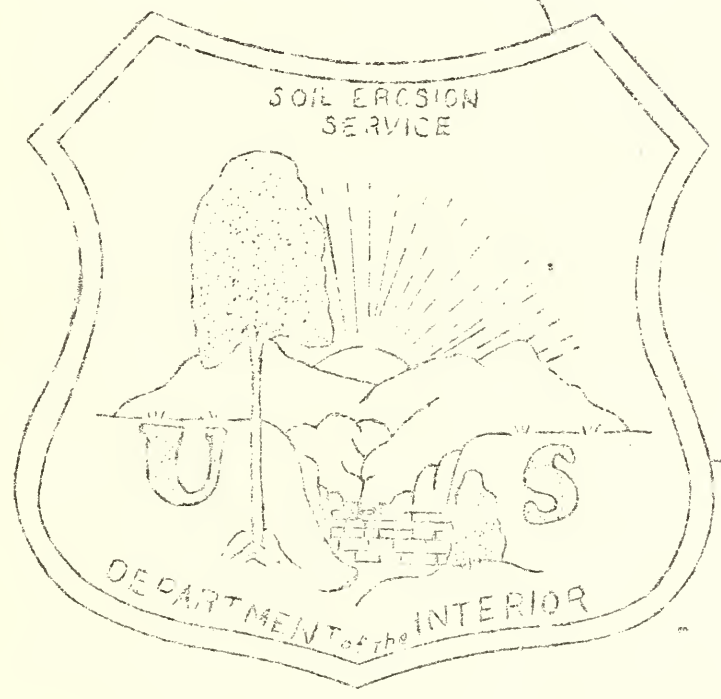
THE BRUSHY-COOLEY-CYPRESS CREEK

Feb 35

NEWS

MINDEN

RUSTON



PROJECT 15
MINDEN LA.

National Erosion Problem

The Journal of the American Society of Agronomy recently published the report made by a committee composed of H. H. Bennett, Chairman, A. B. Conner, F. L. Duly and H. H. Krusekopf which was made on the results of a nation-wide reconnaissance survey relative to erosion. The survey was made in cooperation with the National Resources Board in the presentation of pertinent data relating to the national erosion situation and plans for a far-reaching control program.

These figures should be enlightening and interesting, not only to those interested directly in the erosion control program now underway in this nation, but also in bringing these facts before the landowners of the nation and making them realize the reasons why the erosion problem is of national as well as local importance. Study the figures given below:

Area covered by the survey, acres.....	1,924,650,100
Area showing little or no erosion.....	540,059,617
Area affected by erosion in some degree...	1,384,590,483
Area from which $\frac{1}{4}$ to $\frac{3}{4}$ of topsoil has been removed by water erosion.....	575,317,688
Area from which $\frac{1}{2}$ to $\frac{3}{4}$ of topsoil has been removed by water and wind erosion	645,670,041
Area from which more than $\frac{3}{4}$ of topsoil and some subsoil has been removed by water erosion.....	201,725,519
Area from which more than $\frac{3}{4}$ of topsoil and some subsoil has been removed by water and wind erosion.....	214,264,093
Area affected by gullying.....	938,746,488
Area moderately gullied.....	425,736,352
Area destroyed by gullying.....	9,968,507
Total area affected by wind erosion.....	311,347,709

Here are some other interesting figures which have been compiled by the experiment station at Guthrie, Oklahoma:

Runoff of rainwater is 10 times greater from row crop fields than from a field covered with Bermuda grass, and the soil loss is 668 times as great.

Burned woods lose 36 times as much rainfall and 11 times more soil than do unburned forest areas.

Corn grown continuously on a given field loses 61.2 tons of soil per acre as compared to corn grown in rotation which loses only 33.8 tons.

STUDY THE ABOVE FIGURES!

February 1, 1935

THE BRUSHY-COOLEY-CYPRESS CREEK

NEWS

Issued at Minden, Louisiana by
the U. S. SOIL EROSION SERVICE,
Project No. 15, Department of
the Interior. Webster and Lin-
coln Parishes, Louisiana

Vol. 1

No 8

Harold G. Anthony, Editor

THE LONG VIEW IS THE PROPER VIEW

I often wonder just what view the farmers in the Brushy-Cooley-Cypress Creek watersheds are taking of the work of the Soil Erosion Service.

There is only one correct view for the farmers of our area to take in regard to the program. That is the long view--the view which brings a vision of the future.

The program of the Soil Erosion Service cannot be and is not intended to be one from which the maximum good can be derived in a short period of time--say one or two years. It is a program of work from which best results will not be completely obtained for a decade or more.

This long range benefit of our program is not a liability, but a very distinct asset. It speaks for the bigness, the permanency of our work when we know that it is a project which will go on and on through the coming years, building, growing.

Any program of work which temporarily picked us up and then let us down would not be

worth the effort--in a comparative sense at any rate.

We have had enough of temporary farm programs in our nation; enough of activities which may defeat the "depression" for a month or a year. The program that is worthwhile is the program that will not only put us in a position to meet present farming problems but will grow to such an extent that it will be of more value to us one, two or ten years from today.

And that is just what the Soil Erosion Service is setting out to do. Work done on the farms of the demonstrational areas is, of course, of untold value to the farmer in meeting his farm problems of 1935. But is it not a wonderful, an encouraging thought to know that here is a plan of farm improvement that will become even more valuable in the years ahead.

The long view ahead is the view that we need in this great country of ours--in business as well as agricultural planning.

I heard a farmer say recently: "I am getting old; my years are numbered. What good will a long-time farm improvement program do me?"

This man has a large family of children. Even if we were to grant, which we do not, that the erosion control program had only a "far off" benefit, don't you think the farmer will have a greater sense of doing a duty for his family as well as his country if he makes every effort to leave behind him an improved and proper land-used farm? This, of course, plus the present value that he is giving his farm land in entering into the program of the Soil Erosion Service. Get the long view!

All
Programs
12:30
O'clock

Radio-Education-News

Programs
Always
on
Saturdays

Dates for radio talks over Station KEDS "The Shreveport Times Station" at Shreveport, which will carry the programs to the last week in February are given here. The last six talks of the radio educational series are being given by Department Heads in the Minden office.

The first talk was made on Saturday, Jan. 19 by A. H. Bean on the subject, "Soils Survey in Connection with Erosion Control." On Jan. 26, Mr. A. C. Morris, agronomist spoke on "The Cooperative Agreement." Other talks and subjects will be presented on the following dates:

Saturday, Feb. 2--"The Engineer's Part in Soil Erosion Control," F. S. Edmiston, Chief Engineer.

Saturday, Feb. 9--"The Use of Grasses and Legumes in Soil Erosion Control," W. E. Dee, Chief of Range Management.

Saturday, Feb. 16--"Forestry and Soil Erosion Control," A. S. McKean, Forester.

Saturday, Feb. 23--"Game Conservation and Rodent Control in Connection with the Erosion Program," J. W. Harrett in charge of this work on the North Louisiana project.

The first six talks in the series of broadcasts, which were started on Nov. 24 were of a general nature, pointing out the need for the present work by the Soil Erosion Service, the work that has been done and other pertinent facts pertaining to the work on the local project as well as from a national standpoint.

From reports it is evident that these radio talks are having an increasingly large number of listeners in the Ark.-La.-Tex. area.

A Minden radio dealer set up a receiving set in the office on Friday, Feb. 18 in order that the talk of Director Bennett, given on the National Farm and Home Hour program on a national hook-up. As it happened on this day weather conditions were such that field work could not be done. Consequently there was a big group of listeners in the office to hear the talk.

The newspapers of North Louisiana are giving an increasingly large amount of space to the activities on Project 15. Editors realize the importance of the work and readers are constantly wanting to know more about the S. E. S. program.

General Work Progress Report of Entire Service

Thirty-two widely scattered erosion control projects--practical demonstrations of the most scientific and effective methods of curbing land destruction by wind and water--were in active operation under the Soil Erosion Service at the close of 1934.

These projects, according to a report submitted to Secretary of the Interior Harold L. Ickes by Hugh H. Bennett, Director of the Soil Erosion Service, cover approximately 27,300,000 acres of land in thirty-one states where the damage to land resources by accelerated erosion has been most severe.

Outlining the development of the erosion control program, Mr. Bennett asserted that it now represents the most comprehensive campaign ever undertaken to protect and conserve the nation's most basic natural resource.

"Since its inception sixteen months ago", the Director stated, "the program of the Service has grown from a mere idea into a major effort on the part of the United States to curb the destruction of its land. Through the thirty-two existing projects, which range in size from 25,000 to 16,000,000 acres, the Federal Government is showing thousands of farmers in every section of the country the practicable and sensible way to combat their most vicious enemy--soil erosion."

Within twenty-one of the established project areas, the report stated, approximately 10,000 individual farmers had signed formal cooperative contracts agreeing to carry out, for a period of five years, the erosion control measures recommended by experts of the Service as most adaptable to the needs of their land. These contracts cover an aggregate of approximately 1,500,000 acres. Additional contracts were awaiting completion in those projects which have only recently been set up and which have not yet gotten fully underway, the Director pointed out.

Under these cooperative contracts far-reaching cropping reforms, designed to halt run-off of rainwater and consequent soil loss, will be instituted throughout the project areas. In approximate numbers, these crop reforms under contracts signed up to Oct. 1, include: Strip cropping on 200,000 acres; contour farming on 300,000 acres; planting of thick growing cover crops on 200,000 acres; retirement from cultivation of 125,000 acres; and a decrease of 100,000 in the number of acres hitherto planted to clean-tilled crops.

In addition, under the contracts existing Oct. 1, the Service had secured agreement on the part of cooperating farmers for the terracing of 225,000 acres, the construction of 70,000 erosion control dams, and the planting of 1,700,000 trees on areas to be retired from cultivation.

Most of the actual labor in connection with the erosion control program is performed by CCC workers under the direction of the Service, the report stated. At the close of the year fifty-one ECW camps were assigned to the Service, with a total of approximately 11,000 men. In addition, 4,129 persons were employed directly by the Service. The monthly payroll for all employees of the Service, exclusive of CCC workers but including their supervisory personnel, was approximately \$500,000.

Of the \$20,000,000 allocated to the Service by the Public Works Administration, Mr. Bennett reported, \$12,827,000 has been allotted to the various projects now in existence, \$910,000 has been tentatively earmarked for proposed projects not yet approved, and \$6,263,000 remains in reserve.

Actual cash disbursements from the total allotment to projects totaled approximately \$5,000,000 at the close of the year, the report stated, while an additional \$800,000 had been obligated by contracts. The remainder, \$7,027,000 represented unobligated allotments available to the various projects.

During the year, the Service completed in two months time an intensive reconnaissance survey of land and soil conditions in every county in the country. Data obtained by this study is being compiled into an erosion map of the entire United States which will show not only the extent and nature of erosion, but the degree of slope, the predominant soil type and the prevailing land cover in every locality.

Also, during the year, the largest aerial mosaic map ever made was completed under the direction of the Service--a detailed air picture of the 16,000,000 acres of land included in the erosion control and land use project being carried out by the Service on the Navajo Indian Reservation in Arizona and New Mexico.

If you are going to farm, why not make a business of it and use the best practices and methods which have been found to stand up under practical experimental tests. The Soil Erosion Service is not guessing in what it does. We are using tried and tested methods of land use and erosion control.

Among recent visitors from outside the area to the Soil Erosion Service Project in North Louisiana was Dr. C. W. Upp, Chief of Poultry Research in the Experimental Station at Baton Rouge. Dr. Upp was taken over the area by J. W. Hamnett, who has charge of game conservation and rodent control on the local project. Dr. Upp expressed himself as being elated with the type of work being done here.

It is always a real pleasure to the staff of Project 15 to show visitors over the area.

News Tidbits Views

CYPRESS WILL SMILE AGAIN

Way out on Cypress Creek,
Far out in Colvin-ville,
Where large white oaks were thick
And squirrels had daily drills.

It was a mighty shame
To see those fine trees cut;
Where they stood on one steep
grade,
We see where man and axe have
struck.

Today on that there ridge,
We can see white man's folly;
For just above the tram road
bridge
There's nothing much but gully.

It is truly fine indeed
To see man right that wrong,
By planting pine and locust
trees;
Again filling that ridge with
song.

Anonymous from
Ruston Office.

VISIT LINDALE PROJECT

Nine staff members from
Project 15 spent Wednesday, Jan.
9 visiting and inspecting the
work being done on the Duck
Creek project at Lindale, Texas.

Those making the trip were
A. A. Breeden, E. H. Greene, H.
L. McCall and A. Osterberger of
the Ruston office and T. C. An-
derson, W. E. Dee, Guy Fletcher,
R. B. Moore and R. W. Granberry
of the Minden office.

Mr. Dee and Mr. Fletcher
stayed over for a second day.

WE KNEW THIS ALL THE TIME

The following statement
from the Tyger River project
news bulletin is of especial in-
terest to the people of North
Louisiana since Minden is Con-
gressman Sandlin's home. He is
one of Soil Erosion Service's
staunchest supporters.

"I know of no better way to
spend Federal funds than in soil
EROSION work," said Con. John N.
Sandlin after visiting the South
Tyger River Project recently.

"I really believe the soil
EROSION work will be expanded.
Thousands of boys engaged in
this work will stay on the farms
now who would not have stayed
there if they had not had the
opportunity to learn something
about it."

From Spartanburg,
S. C. Herald-Journal,
December 30, 1934.

HILLY COMMUNITY CLUB HOST TO S. E. S. MEN

Members of the staff of the
S. E. S. were guests Tuesday
night, Jan. 8 at the Hilly Com-
munity Club meeting. Despite
the heavy rain there was a large
attendance at the meeting. Both
the Ruston and Minden offices
were represented.

Following the regular busi-
ness meeting a bounteous "feed"
of baked chicken, dressing, plus
all the accessories, and cake
were served.

Important Statistics Vital

A most interesting survey on pasture and livestock conditions in the Minden and Ruston areas has recently been completed by K. A. Shafer, Research Assistant, under the direction of W. E. Dee, Chief of Range Management.

The figures compiled after a survey of 100 farms in Webster Parish and 55 farms in Lincoln Parish conclusively show the great need for more improved pastures in both parishes. The survey also shows a great shortness of livestock on practically every farm surveyed. Here are figures which our farmers and public officials should study. We are giving the report here in full and urge every reader of the NEWS to give these figures careful consideration, apply the averages to your own farm and see where you are falling down in shortness of cattle, work animals and pasture necessary to properly care for the stock which you have.

FIGURES IN WEBSTER PARISH

Total acres in 100 farms studied.....	13,422
Average acres per farm.....	134.22
Total acres in cultivation.....	6,753
Average acres in cultivation per farm.....	67.53
Total acres in pasture.....	949
Average acres in pasture per farm.....	9.49
Units of hogs (total).....	190
Average hog units per farm.....	1.9
Cows and monegrels (total).....	784
Average per farm.....	7.84
Work animals (total).....	301
Average per farm.....	3.01
Total units livestock on 100 farms studied..	1,275
Average livestock units per farm.....	12.75
Present average pasture acres per animal unit.	.74
Average cultivated acres per work animal....	22.51

Of the 100 farms studied in Webster Parish we find only 73 farms having pastures with the average pasturage per farm being 13 acres. We find five farms are without cows, 23 farms without hogs, and 6 farms with no work stock or tractors or power of any kind except borrowed animals.

(Continued--Next page)

According to the best husbandry for this area, each animal unit should have at least two acres of pasture. For the number of animals now owned on the farms studied, pasturage should be as follows: 380 acres of pasture for the hogs; 1,568 acres for the cow units; and 602 acres for the work animals. A total of 2,550. On the farms studied there are 949 acres of pasturage, therefore showing a deficit of 1,601 acres according to the animal units now on these farms.

The Soil Erosion Service has taken out of cultivation such areas as determined necessary or expedient and have retired and put into permanent pastures a total of 316 acres, still leaving a pasture deficit of 785 acres for the area studied.

In the Ruston area fifty-five farms were studied. Since 1915 the area around Ruston has been called a "dairy section".

FIGURES IN LINCOLN PARISH

Total acres in 55 farms studied.....	6,678
Average acreage per farm.....	122
Total acreage in cultivation.....	3,306
Average acreage in cultivation.....	61
Total acres in pasture.....	795
Average acres in pasture per farm.....	14.4
Number of hog units.....	73.5
Average hog units per farm.....	1.33
Total cow units.....	591
Average cow units per farm.....	10.7
Total number of work animals.....	142
Average per farm.....	2.57
Total animal units.....	806.5
Average animal units per farm.....	14.6
Average acres of pasture per animal unit... where it should be 2 acres.	.45
Average acres in cultivation per work unit.	23

Of the 55 farms studied, 5 have no pasture. Of the 50 with pasture the average acreage is 8.2 acres. Farms without cows, 2. Farms without hogs, 5. Pasture needed for hogs, 147 acres; for cows, 1,182; for work animals, 284. Total pasturage needed in this area for animal units there, 1,613. Total acreage in pasture, as already shown is 795. The Soil Erosion Service has given this area a total of 412 acres of improved pasture, still leaving a pasture deficit of 406 acres.

(Continued on Next Page)

SUMMARY FOR 155 FARMS STUDIED: 123 of the farms had pastures; seven farms are without cows, 28 are without hogs and 6 have no work animals.

There is a need in the two areas for: 527 acres of pasture for hogs; 2,750 acres for cows and 886 acres for work animals-- a total of 4,163 acres. There are 1,744 acres of pasture, which plus the 1,228 acres of pasture worked up by the Soil Erosion Service still leave a deficit of 1,191 acres or an average deficit of 7.62 acres per farm.

It is felt by Mr. Dee that the study of the 155 farms in Lincoln and Webster Parishes will be found to be representative of the area as a whole. Further, it should be noted that 73% of the farms own only 30% of the hogs and 40% of the cows, thus accounting for the high average per farm family.

We urge our readers not to just look over these figures and forget them. Study the tables given here. There is much meat for thought in them.

BAD WEATHER SLOWS UP
WORK IN AREA

Terribly rainy weather in North Louisiana since the first of January has slowed up work in the area considerably. It has been impossible to use the heavy terracing equipment because of the soft conditions of most of the fields. On top of the heavy rains we had a sleet and snow storm (something very unusual for this section) on Jan. 21, further slowing up the outside work. However, the field men are putting in every minute that it is possible between rains on the few sunshiny days we have had.

the Minden office. From here they went to the project at Meridian, Miss. where they will be located until warmer weather comes to the Middle West area. They are both soils men.

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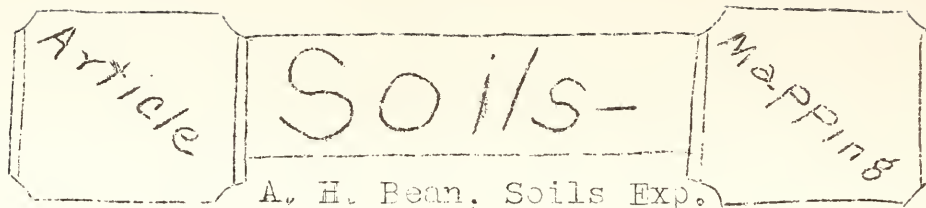
SODDING OF DITCHES

Work is getting underway in the sodding of ditches. A large number of sod cutters have been made and as the weather permits this work will be carried along in fast order. This is a most important phase of the erosion control program and once the grass is growing good washing will be retarded in the ditches.

MEN FROM BETHANY, MO.
PROJECT HERE

Dave A. Shadle and Charles Fox of the staff of the Bethany, Mo. Soil Erosion Service Project spent about a week at

It is well known that Bermuda grass is one of the best erosion controlling agencies that we have. Washing and gully-ing is not only retarded, but once a good sod is obtained, will be stopped by the thick-growing Bermuda grass.



We are presenting again this month another article on one of the predominating types of soil which appears in this area prepared by Mr. Bean

SUSQUEHANNA FINE SANDY LOAM

Susquehanna fine sandy loam is one of the difficult soils of North Louisiana to handle. It is very erosive, difficult to cultivate and is not inherently fertile.

The type consists of from 6 to 12 inches of light grayish brown or gran loamy fine sand, which is rather loose and structureless, but when wet is compact. This rests directly on bright red, often mottled with yellow or gray, plastic heavy clay. The gray mottlings become more numerous with depth and in the typical profile at a depth of 3 feet below the ground surface the subsoil clay is gray with mottlings of red.

The subsoil is very impervious to water and bakes hard in dry weather. Rain penetrates the topsoil readily, but only penetrates the subsoil slowly and consequently the excess rain must run off, carrying the topsoil with it. The subsoil is very retentive of water and when rains are slow and not of too long a duration, the subsoil will store up a large amount of moisture.

This soil is usually found on rolling lands and usually has some ironstone gravels scattered throughout the upper part of the profile.

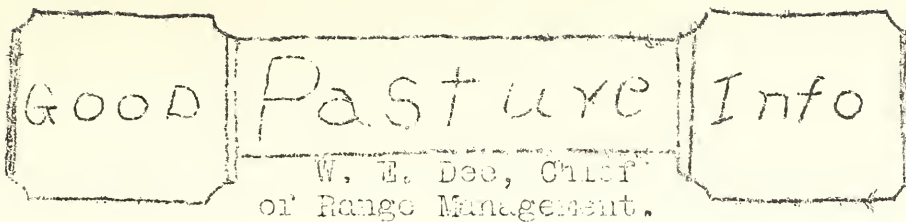
General farm crops are usually grown with varying success due to the variations in seasons as the season must be just right for the best results from Susquehanna. When the topsoil is deep, Irish and sweet potatoes do very well, but grass crops and pastures are probably the best bets for this soil. Legumes are very beneficial in the cultivation as they improve the structure and add to the fertility when plowed under.

----- PROGRESS REPORT OF SOILS MAPPING

Farms mapped to date (January 19).....443
Acres mapped to date " ".....60,275

The scale used in making the maps is 500 feet to an inch or about 1 mile to 10 inches. Farms mapped to date average about 135 acres. Every acre on each farm is mapped as to gullies, forests, streams, houses, orchards, fences, fields, crops, soils, slopes and amount of erosion.

Mr. Farmer, turn in your name and your farm will be mapped if it is in the area.



THE VALUE OF LIME

By J. P. Maxwell
Assistant in Pasture Work.

The practice of applying lime to the soil is very old, probably extending back many years before the Christian Era. However, this practice did not receive much attention in the United States until the past quarter of a century.

The different forms of lime from an agricultural standpoint are oxide, hydroxide and carbonate of calcium or magnesium. Calcium is usually the predominating element. Lime is usually called a soil "amendment" rather than a fertilizer, as it does not carry nitrogen, phosphorus or potassium.

The commonly used commercial forms of lime are: (1) Burnt lime; (2) water-slaked lime; (3) ground limestone; (4) ground shells; and (5) marls. All of these materials are used for agricultural purposes, but vary to a certain extent in effectiveness.

The kind of lime to use on a given area should be determined almost entirely by the kind which gives the greatest sweetening power for a dollar invested. Similar recommendations are given by the majority of experiment stations of the United States reporting on the relative value of different forms of lime. Hopkins (1907) in Illinois strongly recommends the use of ground limestone, such as is used by the Soil Erosion Service, in preference to burnt lime. In arriving at the price of lime applied to the land, the farmer must consider all costs, including freight, wagon hauling and spreading.

The use of lime usually makes it easier to produce good crops of clover. Where clover can be grown successfully, most adapted crops thrive. Many of the beneficial effects commonly attributed to lime are really directly due to the growth of clover made possible by the use of lime.

Lime has the following effects, when applied to the soil: (1) Correction of soil acidity; (2) improvement of the physical condition; (3) stimulation of the proper decomposition of organic matter; and (4) increases the availability of other minerals in the soil.

(More pasture information on next page.)

HOLD WATER ON PASTURES

By. G. D. Kelly
Assistant in Pasture Work.

As the Soil Erosion Service does not build terraces with the large tractors and graders on land retired from cultivation and converted into improved permanent pasture, it is necessary for us to construct them with special made terracing plows, commonly called Kelly plows. The purposes of these terraces are to check the rapid runoff of water that falls on the pasture, and to hold as much water on the land as possible. The latter is brought about by running the terraces on a contour or dead-level.

Holding of water on pasture land is of prime importance as this insures a good growth of grasses and clovers over the entire area instead of only on the low wet places.

The first step taken in building Kelly terraces is the running of the contour or terrace lines by the engineers. Distances between terraces are determined by slope of the land - ranging from 12 to 30 feet. These lines are marked off by the farmers. Next, the sodding crew goes to the field to sod the bermuda grass and this crew, with the aid of the farmer, makes four rounds with the Kelly terracing plow. Bermuda grass is dropped 18 inches apart in each furrow of the terrace to insure a good sod on the terrace.

These small terraces are not expected to stand the hard winter rains like the large terraces in the cultivated fields. They will have to be plowed up again before fertilizer is applied and the seed sown in the latter part of February. The low places in the terraces will then be filled with sack dams by the E. C. W. boys.

These sacks are filled with bermuda grass and rich soil. As the grass will form a dense growth in the low places, it will eventually catch enough soil to fill the terraces until they are of uniform height.

It may be necessary to replot these terraces several times before a satisfactory terrace can be built that will hold practically all the water that falls on the pasture.

BERMUDA AS A PASTURE GRASS

By S. A. Thibodaux,
Assistant in Pasture Work.

A farmer, when first approached on the subject of Bermuda grass as the basic grass on improved pasture, will without deep

(Continued on Next Page)

thinking be opposed to this so-called pest. It is true that in cultivated fields of cotton and corn, etc., Bermuda is regarded as a pest. Now, when this grass is considered as a soil conserver and a pasture grass it cannot be overlooked.

Bermuda is the most valuable of Southern grasses, forming a smooth, dense turf. The growth of this grass forms a mat which accumulates escaping soil and forms an even sodded bed.

Bermuda is the leading permanent pasture plant in the South. It may be used alone, or along with Lespedeza. With addition of Black Medic and other clovers, pastures may be grazed throughout the year.

Bermuda grass under favorable conditions may be used for hay. Normally two crops are produced in a season.

The foremost value of Bermuda grass on rolling land is its control of soil erosion. It will catch and bind the soil, and shifting of sands is prevented thereby saving sloping areas from erosion where there are well set stands.

Bermuda grass is a proved moisture holder. Its root system forms a mulch which holds moisture near the surface of the ground. Bermuda pastures are also a great help in raising of the water table.

After considering the above facts the farmer will conclude that Bermuda grass should be used on eroded lands which are put into pasture.

ATTEND SOILS MEETING

A. H. Bean, Soils Expert, from the Minden office and S. J. Breaux, soils man from the Ruston office, attended a three-day session of soils men at Meridian, Miss. on January 8, 9, 10.

The meeting was a gathering of soils experts from various Soil Erosion Service projects. The meeting was in charge of Mr. Glen L. Fuller, Chief Soil Erosion Specialist, from the Washington office. The purpose of the meeting was for the discussion of problems relating to the soils end of the erosion control work.

The men reported a good meeting.

NEW MEMBER ADDED TO STAFF

K. A. Shafer from Baton Rouge is now connected with Project 15 in the capacity of research assistant. Mr. Shafer is making a social and economic research survey of the area covered by the North Louisiana project.

Thanks to the boys in the pasture department who submitted articles for the "News". Here's hoping more contributions on different phases of the work find their way to the desk of the editor. Articles relating to the work are always welcome. The more we get the better we like it.

Trap Rodents Poison

J. W. Harnett, In
Charge

Many farmers have been making inquiry in regard to best methods of controlling gophers on their farms. For the benefit of farmers both in and outside of the area of Project 15, who want to do their own rodent control work, Mr. Harnett is presenting the information below, which is correctly followed, will give good results.

The Need For Control: The breaking of terraces in many instances can be directly attributed to the work of the pocket gopher. Their extensive systems of relatively shallow underground burrows invite soil erosion. On pasture areas where these mammals destroy the root system of valuable clovers and grasses and much needed foliage for livestock the damage is especially bad. The various destructive activities of pocket gophers and the losses caused are summarized as follows:

1. They burrow through terraces causing breaks which result in the loss of much soil and the labor necessary for rebuilding.
2. They burrow through check dams in gullies, resulting in further soil and water loss.
3. Their burrows on slopes are often the means of starting gullies.
4. They denude the soil of vegetation--another cause of erosion.
5. Their mounds cause the loss of hay by preventing close mowing.
6. They destroy root and grain crops.
7. They destroy many fruit, nut and forest trees by gnawing the roots.

CONTROL METHODS: Poisoning and trapping form the chief methods of control of the pocket gopher and are the methods which have proved most practical. Fumigating, shooting and flooding are other methods that have been employed.

Over small areas of light infestation, where labor is not too expensive, traps are probably the best method of control. Several good makes of traps are on the market. Over large areas poisoning combined with traps to catch the survivors has proved most practical and economical.

Since the natural food of the pocket gopher consists of

fleshy roots, underground stems, green stems, leaves and grains growing in its habitat, one of these can be selected as a bait for the poison. Baits most commonly used are sections of sweet potatoes, carrots, parsnips, turnips and beets. Grain baits of wheat and oats have been successfully used in some localities.

All vegetable baits should be thoroughly cleaned and then cut into sections of one-half inch square and $1\frac{1}{2}$ inches long. The gopher has a tendency to store smaller pieces of bait.

The following formula has given excellent results in control work in the Soil Erosion Service project:

Cut 2 quarts of sweet potatoes into pieces $1\frac{1}{2}$ inches long and $\frac{1}{2}$ inch square. Dust $1/8$ ounce of Strychnine Alkaloid (powdered) over these pieces from a sifter (pepper box). Mix thoroughly. Never mix more bait than will be used in one day because the bait will dry out and become unpalatable.

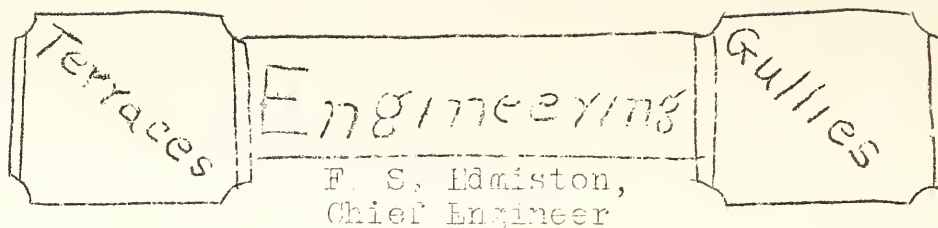
The secrets of success in poisoning are care and cleanliness in preparing the baits and in properly placing them in the runway of the pocket gopher.

LOCATING RUNWAYS AND PLACING THE BAIT: A probe and garden trowel or sharp pointed shovel are the most effective tools to use in locating runways to place the bait. The beginner can usually locate the runway best by probing between two fresh mounds, since they are usually connected by a runway. Most mounds are fan shaped or semi-circular. The main runway is usually from 6 to 20 inches from the base of the flat side. Particular care must be exercised not to mistake the lateral or side runway running from the mound to the main tunnel. This runway is usually used in carrying dirt from the main runway to the surface and is often loosely filled with dirt. When a probe is used the operator receives the impression that this loosely filled runway is the used runway.

When the main runway is located two or three pieces of the bait are placed through the opening. The hole is then covered with vegetation or hard dirt that will not crumble. When a probe is used care must be exercised not to make a deep depression in the bottom of the runway, because the bait will likely drop below the runway proper and not be found by the pocket gopher.

Two places are usually baited at each system or colony of mounds. Two applications of bait at two or three week intervals are usually necessary. If the bait is properly placed there is little danger of injury to wild life or livestock on the farm.

Mr. Hamnett has prepared and has ready for distribution to those desiring them, a pamphlet giving interesting information about the life habits of the pocket gopher and the mole. This pamphlet also sets forth in complete detail methods of controlling the animals. These pamphlets may be secured from Mr. Hamnett at Minden or Mr. Lee at the Ruston office.



Despite many days of rainy weather when it was impossible for the heavy terracing equipment to operate on the wet fields, the Engineering Department has been pushing its work to the limit.

The Engineering Department has constructed a total of 338 miles of terraces--terraces, which is placed end to end in a straight string would reach into the Gulf of Mexico if started from Ruston or Minden.

Condensed totals of progress in the various phases of the engineering work to date are given on this page. Totals are as of January 19, 1935.

Number feet of terrace lines run, 2,671,233 or, translated into miles, equal a distance of 506 miles.

Number feet of strip cropping lines run, 141,322 or 27 miles.

Number feet terraces built, 1,785,274 or 338 miles.

Number feet contour lines run, 1,849,331 or 350 miles.

Number feet terraces built by farmers, 17,176 or 3 miles.

Number brush dams built, 208. Number pole dams, 286.

Number rock dams built, 243 Number sack dams, 18

Number wire dams, 1,111 Number earth dams, 3

Number of farms rechecked for terracing, 330.

Number acres rechecked for terracing, 18,476.

Number square feet of banks sloped, 1,407,675.

Number square feet banks protected by vegetation, 2,100.

Number square feet of brush mulched area, 45,378.

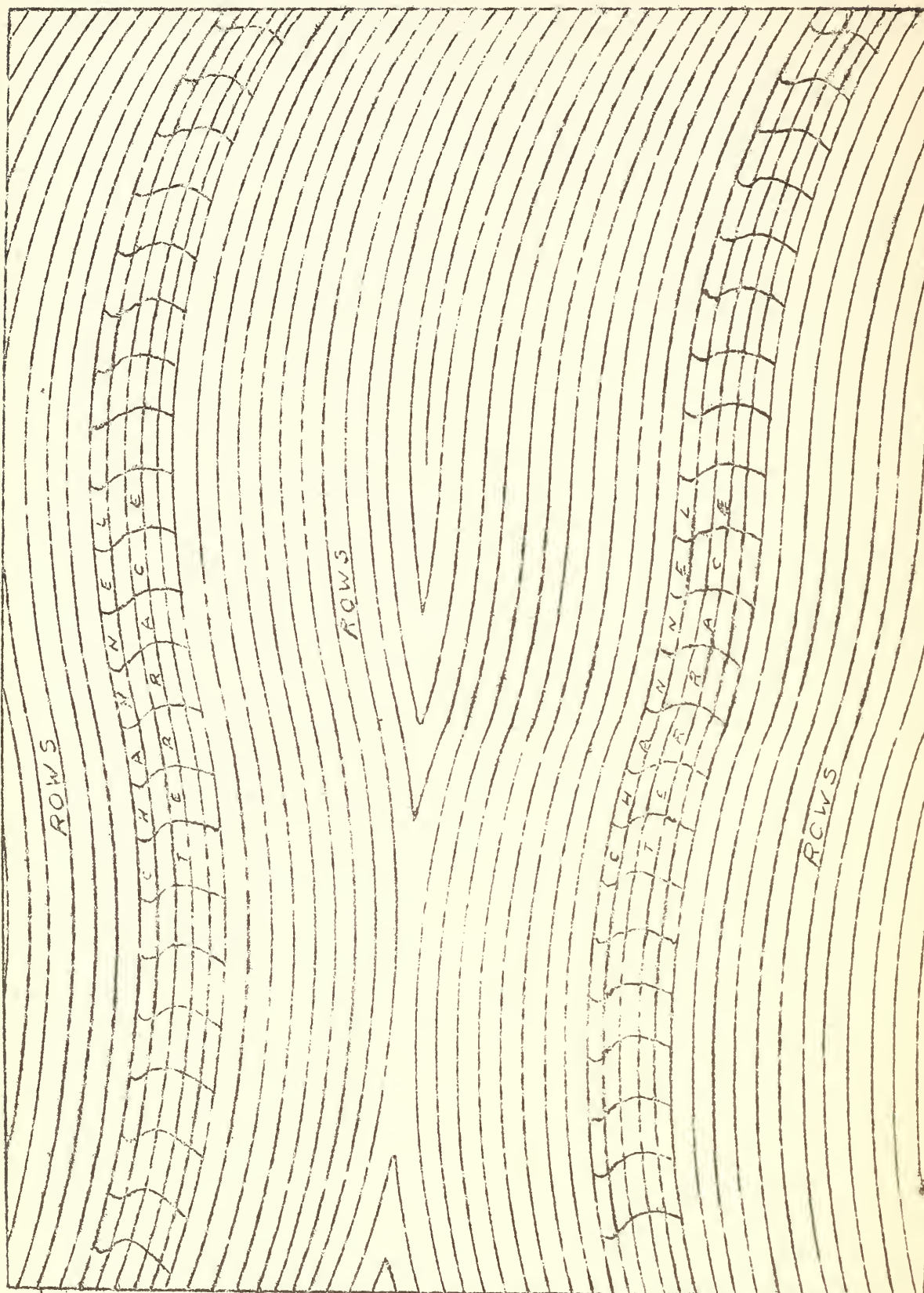
Number feet of new terraces checked, 1,746,525 or 331 miles.

Number of terrace outlets built, 2,703.

Number of diversion ditches built, 12.

(Continued Next Page)

Diagram illustrating row arrangement with reference to terraces.



(See opposite page for full explanation)

Number cubic feet of gullies controlled by loose brush, 19,507.

Linear feet of channel built, 102,343. Interpreted in miles the amount of channel built runs to 19 miles.

Number square yards of seeding and sodding on terrace outlets, 2,755.

CONTOUR TILLAGE

Contour tillage (or cultivation) should always be practiced in the cultivation of hillsides, whether terraces have been constructed or not. Where terraces have been constructed the first row should be laid off on the top of the first terrace. Then each row on the lower side of the first terrace should be laid off parallel to it. These rows should run parallel about half way to the next terrace. Then go to the top of the second terrace and lay off a row. Each row above the second terrace should be run parallel to this one until they meet the rows run from the first terrace. The point rows, or short rows, are then plowed out and will fall midway between the first and second terraces.

The attached diagram illustrates row arrangement with reference to terraces.

Where terraces have not been constructed it is necessary that lines be run with an instrument in order that the rows will be placed accurately upon the contour. For the best control of erosion the rows must approximate a small terrace in order that the ends will not wash out or concentrate the water in the middle of the field causing the formation of a deep gully.

STUDY THE DIAGRAM ON THE OPPOSITE PAGE:

DIVERSION DITCHES

Diversion ditches are very useful in carrying the water around a very active gully. This diversion of the water makes control measures much easier. It also decreases the number of structures necessary and gives vegetative life a chance to get started.

In the selection of places for diversion ditches care must be taken to keep them as level as possible. If the ditch is given too much fall another fully will be formed. The size of these ditches may be determined from the same tables as the weir notches in dams.

If you are going to farm, why not use good farming methods? They may mean a little more work, but it will also mean more profits. Remember anything worth doing is worth doing well. Think

Good Rotation Farming

By Guy Fletcher.

In the last issue of the News we urged the farmers of Webster and Lincoln Parishes to study their Cooperative Agreements and to work out a definite program of crop rotations for their farms. In this month's issue we are presenting a plan of rotation which shows the crops to be grown on specified fields over a period of four years. This rotation, of course, is simply a suggested plan which will give the farmer an idea of how he may work out a crop rotation system for his own farm. We suggest that you study the chart on the opposite page.

The rotation diagram of the Sample Rotation recommended for North Louisiana has been worked out with three things in mind. First from the standpoint of erosion control. Second, from the standpoint of feed crops for the farm. Third, the rotating of crops in such a manner that the same crop is not grown on the same land more than two years in succession with every plot of land having a crop of legumes grown on it each year.

From the standpoint of erosion control, the use of close growing crops in strips on the contour at intervals down the slope will prevent the loss of topsoil to a great degree. By the rotating of oats and vetch with sorghum and peas as strip crops, it is possible to have these strips growing practically the year round. Also the vetch and peas are soil builders and will replace to a large extent the fertility taken by the growing of oats and sorghum.

As a feed crop, corn is the least dependable crop grown in North Louisiana. Therefore the acreage allowed to this crop has been reduced to 20 acres with peas as a companion crop.

The use of sorghum and oats in the strips gives the farmer two chances on a grain crop compared to only one with corn. By the use of 50 acres in oats and vetch, followed by sorghum and peas plus 20 acres in corn and peas the farmer will be insured of a better feed crop on the average than if he planted 50 acres of corn.

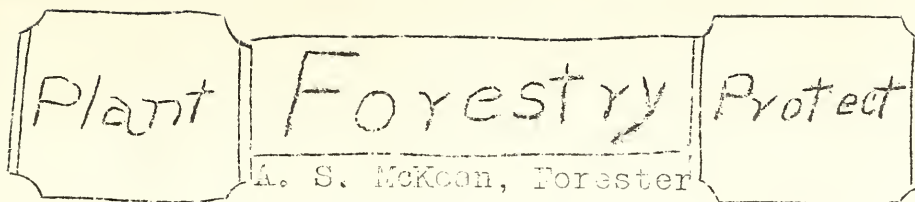
This suggested rotation gives a rotation within a rotation. Cotton is always followed with bur clover or oats and vetch, thus protecting the soil during the winter months and at the same time building up the soil. Peas are grown as a companion crop with corn followed by oats and vetch or cotton. This rotation gives a crop of legumes every year on all of the land.

The rotation shown here is for an acreage of 100 acres. The farmer, of course, may adapt this to the acreage of his farm.

SAMPLE ROTATION

50 ACRES COTTON - - 20 ACRES CORN - - 30 ACRES STRIP

First Year	Second Year	Third Year	Fourth Year
10 Acres. Cotton Followed by Bur Clover	20 Acres CORN and PEAS	10 Acres Strip Crop Oats and Vetch followed by sorghum and peas.	10 Acres Cotton followed by Bur Clover
10 Acres Strip Crop Oats and Vetch followed by Sorghum and Peas. 20 Acres	10 Acres Strip Crop Oats and Vetch followed by Sorghum and Peas 20 Acres	20 Acres. 10 Acres Cotton	10 Acres Strip Crop Oats and Vetch followed by Sorghum and Peas 20 Acres
10 Acres Cotton	10 Acres Cotton Sorghum and Peas	20 Acres. Cotton followed by Bur Clover	10 Acres Cotton
10 Acres Cotton follow- ed by Bur Clover	20 Acres 10 Acres Cotton	10 Acres Strip Crop Oats and Vetch followed by Sorghum and Peas.	10 Acres. Cotton follow- ed by Bur Clover
10 Acres Strip Crop Oats and Vetch followed by Sorghum and Peas	10 Acres Cotton followed by Bur Clover.	20 Acres	10 Acres Strip Crop Oats and Vetch followed by Sorghum and Peas
20 Acres 10 Acres Cotton	10 Acres Strip Crop Oats and Vetch followed by Sorghum and Peas.	CORN and PEAS	20 Acres 10 Acres Cotton
10 Acres cotton followed by Bur Clover	20 Acres 10 Acres Cotton	10 Acres Strip Crop Oats and Vetch followed by Sorghum and Peas	10 Acres cotton followed by Bur Clover
10 Acres Strip Crop Oats and Vetch followed by Sorghum and Peas	10 Acres Cotton followed by Bur Clover	30 Acres 10 Acres Cotton	10 Acres Strip Crop Oats and Vetch followed by Sorghum and Peas.
20 Acres CORN and PEAS	10 Acres Strip Crop Oats and Vetch followed by Sorghum and Peas 10 Acres Cotton followed by bur Clover	20 Acres. Cotton followed by Bur Clover	20 Acres CORN and PEAS



Tree planting activities have been going full speed ahead this month. In the face of many days of bad weather Mr. McKean and his assistants have been utilizing every hour possible to plant the acres dedicated to new forests in several different species of trees.

The predominating plantings, of course, in this area have been several species of pines. Other plantings are being made of black locust, black walnut and some mulberry. When the weather has permitted working of full crews in the area of Project 15, plantings have reached a total of 100,000 per day.

To date 377 acres have been planted. Total plantings of all species have reached the huge figure of 1,061,170. A total of 1438 acres have been signed up for putting into new forests. The most significant thing about the acres to be put into new forest lands is the fact that this number of eroded and unproductive acres will be taken out of cultivation and in the long run will prove far more valuable to the farmer in timber than if he tried to realize a profit from cultivating land from which the productive topsoil has been removed.

In addition to the plantings of areas to new forests, a total of 15,953 acres have been protected from fire by the construction of fire lines.

MR. FARMER, MAKE USE OF THE BLANK BELOW--CLIP AND MAIL

I am now receiving the NEWS regularly. I would like to see an article or discussion in an early issue on the subject of

Name _____

Address _____

Please put the following name on your mailing list:

Name-----Address-----

We are always glad to add new names to the mailing list, and the Editor would also appreciate expressions from readers in regard to topics upon which they would like to have information. Suggestions on ways to make the NEWS bigger and better are always in order.

The Meeting Place

HE LIKES THE WORK

M. T. Worsham, whose farm is located in Webster Parish, near Dubberly, is completely sold on the work that is being done on his farm:

Mr. Worsham sums up his attitude on the Soil Erosion Service in one statement: "This work is the best thing that has ever happened to us farm fellows."

Evidently Mr. Worsham thinks the S. E. S. is "The Berries". (Yes, the capitals were intentional.)

PERRYMAN BROS. ARE CONVINCED

W. D. and Earl Perryman, who operate a farming enterprise in the southern end of Webster Parish are "thoroughly convinced that the program of work as advocated for farms by the Soil Erosion Service is worthwhile and of great benefit to the farmer."

FAY GOING GOOD

W. P. Fey of the local engineering staff, who is in charge of supervising the gully control program in Jackson Parish, is sending in some good reports of work being done in that area. Weekly reports indicate that this work is moving along nicely in Jackson Parish.

ANDERSON TO BATON ROUGE

Engineer T. C. Anderson went to Baton Rouge on Jan. 19 where he attended a tractor school and demonstration put on by one of the manufacturing companies.

On Monday Mr. Anderson talked before the "Draining and Terracing" class of Prof. C. B. Doran at Louisiana State University. He gave the students information concerning this type of work being done on Project 15.

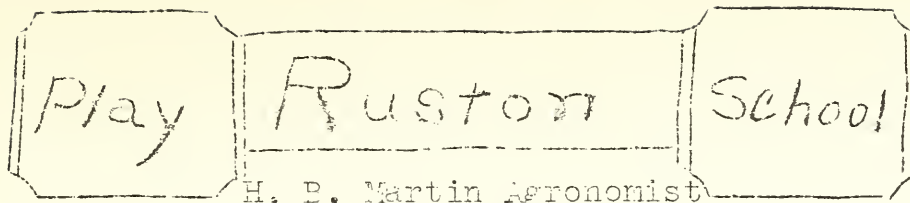
WEBSTER FARMERS HOLD A MEETING

A representative group of Webster Parish met at the Court House on Wednesday, January 23. The farmers were addressed by a number of the Department Heads on the local project.

This meeting was sponsored by County Agent J. K. Gladney and was originally called for the purpose of making a field trip over the area. However, the heavy snow and generally bad weather made the field trip out of the question.

Members of the local staff were glad of the opportunity of discussing the erosion control program with the farmers and appreciate greatly the fine cooperation and interest that is being shown in the project by County Agent Gladney.

The field trip will be held at a later date.



MOCK COURT AT HILLY

The staff at Ruston is really up on its toes, not only in doing the erosion control job assigned to them in that area in the field, but also in spreading the story of the Soil Erosion Service to all parts of Lincoln Parish and surrounding territory.

As evidence of the fine educational work being done in that part of the area is the announcement made by H. B. Martin, Agronomist in charge of operations, that the Ruston office will present a play entitled "The Trial of a Soil Robber" in the church at Hilly on Monday night, Jan. 28.

The play is a mock court which has been adapted for telling the story of the value of Soil Erosion Service work.

Members of the Ruston staff who will depict the various characters of the play are E. H. Greene, A. A. Cann, H. L. McCall, H. B. Martin, Grady McCallum, A. A. Breeden, A. W. Radesch, S. J. Breaux, A. Osterberger and S. A. Thibodaux.

It is announced that the play will probably be given at several points in Lincoln Parish during the coming weeks.

This play is interesting, of a humorous nature and tells a story of the complete work of the Soil Erosion Service in North Louisiana.

ENGINEERING DEPARTMENT DOES EROSION CONTROL WORK ON THE HILLY SCHOOL YARD

The Engineering Department of the Soil Erosion Service at Ruston, in cooperation with a large group of Hilly citizens, have just completed erosion control work on the Hilly school grounds. The school is located on a moderately sloping hill and the uncontrolled runoff for a number of years had removed practically all of the topsoil and gullies were becoming frequent. The grounds in front of the school extended to the highway and at this point gullying and road bank caving presented an acute problem.

The construction of several terraces to keep water from surrounding fields off the grounds and the construction of check dams in the gullies was done. The fills were made by the farmers of Hilly who furnished the teams and drivers and the Soil Erosion Service furnished the supervision and equipment.

The grounds were plowed, leveled, fertilized and sodded to Bermuda grass and seeded with rye grass. Shrubs and trees were furnished by the ladies of the community and landscaping was done under the supervision of the Forestry Department with the help of the Home Demonstration Agent.

After completion of the work the regular monthly meeting of the Hilly Community Club was held--a fine "feed" being spread and good program held.

KELLY TERRACES SHOULD BE RE-PLOWED

Spring planting is just around the corner and the breaking of land will soon be started. Farmers, who have signed cooperative agreements with the Soil Erosion Service and have plowed their Kelly terraces in improved pastures, are urged to re-plow them before all hands are busy with their crops.

This is very important because Kelly terraces need attention so they will not wash out in low places.

Pastures will soon be seeded and as much top soil as possible must be held for best results. Kelly terraces help a great deal in holding top soil, so if we are going to have terraces lets keep them in good shape--and have good ones.

S. A. Thibodaux, Assistant in
Pasture Work.